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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,469	11/14/2001	Marc W. Kauffman	019396-002100US	5288

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EXAMINER
DIVECHA, KAMAL B

ART UNIT	PAPER NUMBER
2151	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/002,469	KAUFFMAN, MARC W.
	Examiner	Art Unit	
	KAMAL B. DIVECHA	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 November 2001*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *20050208*.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

Information Disclosure Statement

The IDS has been considered by the examiner.

Drawings

1.   The lengthy drawing has not been checked to the extent necessary to determine the

presence of all possible minor errors. Applicant's cooperation is requested in correcting any

errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

3.   Claims 7 and 8-16 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

- Regarding claim 7, applicant fails to teach the type of "usage". Usage is a broad

  term and can be read as Internet usage, channel usage, bandwidth usage etc.

  Applicant needs to explicitly disclose the type of usage.

- Claim 8 recites the limitation "choosing a lower bit rate version of the content

  object if the check for availability is unsuccessful" in line 9-10. There is

  insufficient antecedent basis for this limitation in the specification.

- Claims 9-16 are rejected due to their dependency on claim 8.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1, 5 and 7 are rejected under 35 U.S.C. 103(a) as being obvious over Florschuetz

(U. S. Patent No. 6,601,009 B2) in view of McKinnon, III et al. (U. S. Patent No. 6,845,106 B2).

As per claim 1, Florschuetz discloses: A method for distributing a content object over a

broadband connection to an end-user location (see abstract), the method comprising step of:

determining an amount of bandwidth for adequate quality of service (QOS) to transport the

content object (col. 9 L1-5; col. 7 L18-24; col. 8 L25-32; col. 8 L43-53; fig. 3 step # S19);

determining a period for transporting the content object (col. 9 L63-67 to col. 10 L1-7; fig. 3

block # S13); checking for availability of the amount of bandwidth to the end-user location over

the period (col. 9 L26-62; col. 10 L37-40); and streaming the content object to the end-user

location (col. 13 L56-61; col. 5 L1-5), however, Florschuetz does not explicitly disclose the step

of reserving the bandwidth if available.

McKinnon, III, from the same field of endeavor, explicitly discloses the method of

allocating the bandwidth to the users (read as reserving the bandwidth, fig. 11 step # 1108).

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time

the invention was made to incorporate the teaching of McKinnon, III as stated above with the

method and system of Florschuetz for the purpose of reserving the bandwidth.

One of ordinary skilled in the art would have been motivated because doing so would have increased the throughput rate – the amount of data actually transmitted successfully in a given time interval, for acceptable levels of service, and would have also provided higher QoS standards. The throughput rates of data for voice and video would have been provided at a higher rate than throughput rates of data for the traditional Internet services, thereby increasing the performance of voice and video applications and services (McKinnon, III, col. 3 L28-67 to col. 4 L1-20).

As per claim 5, Florschuetz discloses the method for distributing the content object over the broadband connection to the end-user location further comprising a step of determining if a lower QoS is acceptable to an end-user if the check for availability is unsuccessful (col. 9 L1-45).

As per claim 7, Florschuetz does not explicitly disclose the method as in claim 1 further comprising a step of determining usage by the end-user location based on **at least one of a** number of reservations made, an amount of bandwidth reserved, a length of reservation, and a portion of bandwidth used for the amount of bandwidth reserved. McKinnon discloses a method for calculating the bandwidth that is expected to be consumed (read as determining the usage) based on the bandwidth that is actually consumed (used) by a user for the time interval (read as portion of bandwidth used for the amount of bandwidth reserved, col. 13 L5-30; col. 11 L15-20). Therefore, it would have been obvious to a person of ordinary skilled in the art to incorporate the teaching of McKinnon as stated above with the system and method of Florschuetz in order to determine the usage. One of ordinary skilled in the art would have been motivated because it

would have determined the exact amount of bandwidth used by the end-user from the allocated

bandwidth.

6.   Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being obvious over Florschuetz (U.

S. Patent No. 6,601,009 B2) in view of McKinnon, III et al. (U. S. Patent No. 6,845,106 B2) and

further in view of Duso et al (U. S. Patent No. 5,892,915).

As per claim 2, Florschuetz in view of McKinnon, III do not explicitly disclose the

method as in claim 1 further comprising the step of beginning to buffer the content object before

the streaming step. Duso, from the same field of endeavor, explicitly discloses the step of

buffering the object or data before streaming the data (fig. 12 item # 133). Therefore, it would

have been obvious to a person of ordinary skilled in the art at the time the invention was made to

incorporate the teaching of Duso as stated above with the system and method of Florschuetz in

view of McKinnon, III in order buffer the content before streaming the content. One of ordinary

skilled in the art would have been motivated because the step of buffering before steaming the

content or data would have provided parallelism and scalability (Duso, col. 5 L48-52) and would

have also increased the transmission efficiency or streaming efficiency by buffering the

isochronous data streams before the streaming process.

As per claim 3, Florschuetz in view of McKinnon, III do not explicitly disclose the

method as in claim 1 further comprising the step of beginning to cache the content object before

the streaming step. Duso, from the same field of endeavor, explicitly discloses the step of

caching the object (read as content object) before the streaming step (fig. 16; fig. 9; fig. 12 item

#132 and fig. 15). Therefore, it would have been obvious to a person of ordinary skilled in the art

at the time the invention was made to incorporate the teaching of Duso as stated above with the

system and method of Florschuetz in view of McKinnon, III in order to cache the content object

before streaming the content. One of ordinary skilled in the art would have been motivated

because the step of caching before steaming the content or data would have provided parallelism

and scalability (Duso, col. 5 L48-52) and would have also increased the transmission efficiency

or streaming efficiency by caching the isochronous data streams before the streaming process.

7.   Claim 6 is rejected under 35 U.S.C. 103(a) as being obvious over Florschuetz (U. S.

Patent No. 6,601,009 B2) in view of McKinnon, III et al. (U. S. Patent No. 6,845,106 B2), and

further in view of Malmlof (U. S. Patent No. 6,594,241 B1).

As per claim 6, Florschuetz in view of McKinnon, III et al., discloses the method as in

claim 1, further comprising step of determining the amount of bandwidth available over the

period, where the amount of bandwidth is less than that required for adequate QoS (Florschuetz,

col. 10 L37-40; col. 8 L25-53), however, Florschuetz in view of McKinnon, III et al does not

disclose the steps of determining a buffer amount to provide adequate QoS; and storing the

buffer amount corresponding to a portion of the content object proximate to the end user

location.

Malmlof, from the same field of endeavor, explicitly discloses the steps of determining

the buffer amount (fig. 13 step # 104) and the step of storing the buffer amount (fig. 13 step

#106). Therefore, it would have been obvious to a person of ordinary skilled in the art at the time

the invention was made to incorporate the teaching of Malmlof as stated above with the system

and method of Florschuetz in view of McKinnon, III in order to determine a buffer amount and store the buffer amount.

One of ordinary skilled in the art would have been motivated because buffer memory are designed to control and utilize the quality of service parameters such as the transfer rate in order to provide a requested quality of service by the user. It would have also provided high throughput, low delays and lower jitter by controlling the data transfer to the buffer according to the capacity of the buffer memory.

8.   Claims 4, 8, 11, 13, 16, 17 and 20 are rejected under 35 U.S.C. 103(a) as being obvious over Florschuetz (U. S. Patent No. 6,601,009 B2) in view of McKinnon, III et al. (U. S. Patent No. 6,845,106 B2) and further in view of Wang et al (U. S. Patent No. 6,434,197 B1).

As per claim 4, Florschuetz in view of McKinnon III does not explicitly disclose the method as in claim 1 further comprising a step of converting the content object to a lower bit rate if the check for availability is unsuccessful. Wang, from the same field of endeavor, explicitly discloses the method of format conversion and further converting of the bit rate from a high to a low rate (col. 5 L35-63; col. 1 L54-63). Therefore, it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to incorporate the teaching of Wang as stated above with the system and method of Florschuetz in view of McKinnon III for the purpose of converting the content object to a lower bit rate. One of ordinary skilled in the art would have been motivated because for many applications, the pre-compressed bit streams must correspond with only specific allowable, or otherwise desirable, video formats and rates. Accordingly, it is often necessary to change the format or other characteristics of the video data

prior to communicating it to a set-top box to meet a rate requirement (Wang, col. 1 L5-35; col. 2 L55-61).

As per claim 8, Florschuetz in view of McKinnon III discloses A method for distributing a content object over a broadband connection to an end-user location (Florschuetz, see abstract), the method comprising step of: determining an amount of bandwidth for adequate quality of service (QOS) to transport the content object (Florschuetz, col. 9 L1-5; col. 7 L18-24; col. 8 L25-32; col. 8 L43-53; fig. 3 step # S19); determining a period for transporting the content object (Florschuetz, col. 9 L63-67 to col. 10 L1-7; fig. 3 block # S13); checking for availability of the amount of bandwidth to the end-user location over the period (col. 9 L26-62; col. 10 L37-40); reserving the bandwidth if available (McKinnon III, fig. 11 step # 1108); and streaming the content object to the end-user location (Florschuetz, col. 13 L56-61; col. 5 L1-5), however, Florschuetz in view of McKinnon III does not explicitly disclose the step of choosing a lower bit rate version of the content object if the check for availability is unsuccessful. Wang, from the same field of endeavor, explicitly discloses changing a high bit rate of the content to a low bit rate (col. 2 L55-61; col. 5 L46-52). One of ordinary skilled in the art would have been motivated because of the same reasons as set forth above for claim 4.

As per claim 11, Florschuetz in view of McKinnon III discloses the method for distributing the content object over the broadband connection to the end-user location further comprising a step of determining if a lower QoS is acceptable to an end-user if the check for availability is unsuccessful (Florschuetz, col. 9 L1-45).

As per claim 13, Florschuetz in view of McKinnon III discloses the method for distributing the content object over the broadband connection to the end-user location further comprising a step of reserving the bandwidth at a future time (McKinnon III, col. 11 L48-56; col. 13 L5-45).

As per claim 16, Florschuetz in view of McKinnon III does not explicitly disclose the method as in claim 8, further comprising a step of converting the content object into versions that have different bit rates. Wang explicitly discloses the process where first compressed digital video data would be processed to change its bit rate according to a second selection signal and the bit rate would be changed from variable to fixed, or from fixed to variable (col. 2 L55-61). Wang also discloses a transcoder, which is able to convert a pre-compressed digital video bit stream into another bit stream at a different rate and format (col. 1 L54-64; fig. 2; fig. 3). Therefore, it would have been obvious to a person of ordinary skilled in the art the time the invention was made to incorporate the teaching of Wang as stated above with the system and method of Florschuetz in view of McKinnon III in order to convert the content into different bit rates. One of ordinary skilled in the art would have been motivated because of the same reasons as set forth in claim 4 above.

As per claims 17 and 20, they do not teach or further define over the limitations in claims 8 and 11. Therefore, claims 17 and 20 are rejected for the same reasons as set forth in claims 8 and 11.

9.   Claims 12 and 21 are rejected under 35 U.S.C. 103(a) as being obvious over Florschuetz

(U. S. Patent No. 6,601,009 B2) in view of McKinnon, III et al. (U. S. Patent No. 6,845,106 B2)

and further in view of Wang et al (U. S. Patent No. 6,434,197 B1), and further in view of

Malmlof (U. S. Patent No. 6,594,241 B1).

As per claim 12, Florschuetz in view of McKinnon, III et al., and further in view of

Wang, discloses the method as in claim 1, further comprising step of determining the amount of

bandwidth available over the period, where the amount of bandwidth is less than that required for

adequate QoS (Florschuetz, col. 10 L37-40; col. 8 L25-53), however, Florschuetz in view of

McKinnon, III et al, and further in view of Wang does not disclose the steps of determining a

buffer amount to provide adequate QoS; and storing the buffer amount corresponding to a

portion of the content object proximate to the end user location.

Malmlof, from the same field of endeavor, explicitly discloses the steps of determining

the buffer amount (fig. 13 step # 104) and the step of storing the buffer amount (fig. 13 step

#106). Therefore, it would have been obvious to a person of ordinary skilled in the art at the time

the invention was made to incorporate the teaching of Malmlof as stated above with the system

and method of Florschuetz in view of McKinnon, III and further in view of Wang in order to

determine a buffer amount and store the buffer amount.

One of ordinary skilled in the art would have been motivated because buffer memory are

designed to control and utilize the quality of service parameters such as the transfer rate in order

to provide a requested quality of service by the user. It would have also provided high

throughput, low delays and lower jitter by controlling the data transfer to the buffer according to

the capacity of the buffer memory.

As per claim 21, it does not teach or further define over the limitations in claim 12.

Therefore, claim 21 is rejected for the same reasons as set forth in claim 21.

10.   Claims 9, 10, 18 and 19 are rejected under 35 U.S.C. 103(a) as being obvious over

Florschuetz (U. S. Patent No. 6,601,009 B2) in view of McKinnon, III et al. (U. S. Patent No.

6,845,106 B2), and further in view of Wang et al (U. S. Patent No. 6,434,197 B1), and further in

view of Duso et al (U. S. Patent No. 5,892,915).

As per claim 9, Florschuetz in view of McKinnon, III et al., and further in view of Wang

et al does not teach the method as in claim 8, further comprising a step of beginning to buffer the

content object before streaming step. Duso, from the same field of endeavor, explicitly discloses

the step of buffering the object or data before streaming the data (fig. 12 item # 133). Therefore,

it would have been obvious to a person of ordinary skilled in the art at the time the invention was

made to incorporate the teaching of Duso as stated above with the system and method of

Florschuetz in view of McKinnon, III and in further view of Wang in order buffer the content

before streaming the content. One of ordinary skilled in the art would have been motivated

because the step of buffering before steaming the content or data would have provided

parallelism and scalability (Duso, col. 5 L48-52) and would have also increased the transmission

efficiency or streaming efficiency by buffering the isochronous data streams before the streaming

process.

As per claim 10, Florschuetz in view of McKinnon and further in view of Wang do not

explicitly disclose the method as in claim 8 further comprising the step of beginning to cache the

content object before the streaming step. Duso, from the same field of endeavor, explicitly

discloses the step of caching the object (read as content object) before the streaming step (fig. 16;

fig. 9; fig. 12 item #132 and fig. 15). Therefore, it would have been obvious to a person of

ordinary skilled in the art at the time the invention was made to incorporate the teaching of Duso

as stated above with the system and method of Florschuetz in view of McKinnon, III and further

in view of Wang in order to cache the content object before streaming the content. One of

ordinary skilled in the art would have been motivated because the step of caching before

steaming the content or data would have provided parallelism and scalability (Duso, col. 5 L48-

52) and would have also increased the transmission efficiency or streaming efficiency by caching

the isochronous data streams before the streaming process.

       As per claim 18 and 19, they do not teach or further define over the limitations in claims

9 and 10. Therefore, claims 18 and 19 are rejected for the same reasons as set forth in claims 18

and 19.

11.   Claim 14 is rejected under 35 U.S.C. 103(a) as being obvious over Florschuetz (U. S.

Patent No. 6,601,009 B2) in view of McKinnon, III et al. (U. S. Patent No. 6,845,106 B2), and

further in view of Wang et al (U. S. Patent No. 6,434,197 B1), and further in view of Payne et al.

(U. S. Patent No. 6,021,433).

       As per claim 14, Florschuetz in view of McKinnon, III et al., and further in view of Wang

et al does not explicitly disclose the method as in claim 8, further comprising a step of checking

the service plan associated with the end-user location before allowing the reserving of

bandwidth. Payne explicitly discloses the step of checking the service plans (col. 27 L16-18).

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time the

invention was made to incorporate the teaching of Payne as stated above with the system and

method of Florschuetz in view of McKinnon, III et al., and further in view of Wang in order to

check the service plans associated with the end-users. One of ordinary skilled in the art would

have been motivated because this would have enabled Internet service providers to check for the

validity of the service plans since service plans typically dictate what kinds of feeds are available

to a user (Payne, col. 27 L17-24).

12.   Claim 15 is rejected under 35 U.S.C. 103(a) as being obvious over Florschuetz (U. S.

Patent No. 6,601,009 B2) in view of McKinnon, III et al. (U. S. Patent No. 6,845,106 B2), and

further in view of Wang et al (U. S. Patent No. 6,434,197 B1), and further in view of Erami et al.

(U. S. Patent No. 6,385,200 B1).

As per claim 15, Florschuetz in view of McKinnon, III et al., and further in view of Wang

et al does not explicitly disclose the method as in claim 8, further comprising a step of checking

the service tier (read as service rank) associated with the end-user location before allowing the

reserving the bandwidth. Erami teaches a step of checking service rank (read as service tier),

from any location in the network (col. 27 L45-60). Therefore, it would have been obvious to a

person of ordinary skilled in the art at the time the invention was made to incorporate the

teaching of Erami as stated above with the system and method of Florschuetz in view of

McKinnon, III et al., and further in view of Wang in order to check the service tier associated

with the end-users. One of ordinary skilled in the art would have been motivated because this

would have made easier for users to move, transfer, and connect the client terminals within the network (Erami, col. 27 L55-60).

Additional References

13.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

      a.   Szkopek et al. U. S. Patent No. 5,878,221.

      b.   Suzuki et al. U. S. Patent No 5,642,165.

      c.   Tran U. S Pub. No. 2002/0194609 A1.

      d.   Flurry et al. U. S. Patent No. 6,020,900.

Conclusion

14.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAMAL B. DIVECHA whose telephone number is 571-272-5863. The examiner can normally be reached on 9.00am-5.30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ZARNI MAUNG
SUPERVISORY PATENT EXAMINER